



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX LABORATORY
1337 S. 46TH STREET
BLDG. 201
RICHMOND, CA 94804-4698

DEC 08 1993

MEMORANDUM

SUBJECT: Case R00S05, SDG 99300A
Results for Volatile Organic Compounds, 1,4-Dioxane, Anions, and Perchlorate Analyses

FROM: Brenda Bettencourt, Director
EPA Region 9 Laboratory (PMD-2)

TO: Doug Frazer, Remedial Project Manager
Southern California Cleanup Section (SFD-7-3)

Attached are the report narrative, results spreadsheet, and tentatively identified compounds (TIC) reports from analysis of samples from the Whittier Narrows Superfund site. These data have been reviewed in accordance with EPA Region 9 Laboratory policy. Summary information for the data included in this report is as follows:

SITE/PROJECT:	Whittier Narrows Comprehensive
CASE:	R00S05
LABORATORY:	U. S. EPA Region 9 Laboratory
SAMPLE DELIVERY GROUP:	99300A
ANALYSES:	Volatile Organic Compounds (R9 Lab SOP 305) 1,4-Dioxane (R9 Lab SOP 307) Perchlorate (Cal DTSC method, R9 Lab SOP 531) Anions (EPA method 300.0)

A full documentation package for these data, including raw data and sample custody documentation, has been prepared and is being kept on file at the Region 9 Laboratory. Please contact Vance Fong of the Quality Assurance Program (PMD-3) to request review and/or validation of the data.

If you have any questions please contact Rich Bauer at (510) 412-2312, or Ken Hendrix at (510) 412-2321.

ATTACHMENT: Analytical Reports

USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER:	R00S05
SAMPLE DELIVERY GROUP:	99300A
PROGRAM:	SUPERFUND
DOCUMENT CONTROL #:	ESTW-9B-2762
ANALYSIS PERFORMED:	GC/MS Volatiles
DATE SUBMITTED:	December 3, 1999
SAMPLE NUMBERS:	

<u>Sample ID</u>	<u>Laboratory Sample ID</u>	<u>Sample ID</u>	<u>Laboratory Sample ID</u>
WNC9901	AB25195	WNC9902	AB25196
WNC9903	AB25203	WNC9904	AB25204
WNC9905	AB25261	WNC9906	AB25262
WNC9907	AB25263	WNC9908	AB25264
WNC9909	AB25265	WNC9910	AB25266
WNC9911	AB25267	WNC9912	AB25268
WNC9913	AB25269	WNC9914	AB25362
WNC9915	AB25363	WNC9916	AB25364
WNC9917	AB25365	WNC9918	AB25378
WNC9919	AB25379	WNC9920	AB25380

GENERAL COMMENTS

Twenty water samples were received at the EPA Region 9 Laboratory during the period of 10/27/99 through 11/03/99 from the Whittier Narrows Superfund project.

These samples were analyzed for volatile organics in accordance with the USEPA Region 9 Laboratory SOP 305, Volatile Organics Analysis with the addition of tetrahydrofuran to the target analyte list. In addition, all samples were reviewed for the presence of dichlorofluoromethane, 1,1,2-trichlorotrifluoroethane, acrylonitrile and 1-bromo-2-chloroethane. A single standard containing these compounds was analyzed on each instrument to establish the retention time, and mass spectra. No multi-point calibration or continuing calibrations were performed for these compounds. The mass spectra of any unidentified peaks with similar retention times to the above compounds were examined to verify the presence or absence of these compounds.

SAMPLE RECEIPT AND PRESERVATION

The cooler temperatures associated with the following samples was outside of the 2 - 6 ° C temperature range when received:

Sample ID	Laboratory Sample ID	Date Received	Temperature
WNC9914	AB25362	11/03/99	9° C
WNC9915	AB25363	11/03/99	9° C
WNC9916	AB25364	11/03/99	9° C
WNC9917	AB25365	11/03/99	9° C

QA/QC AND ANALYTICAL COMMENTS

The following comments appear on the Summary of Analytical Results:

- A The amount detected is less than the quantitation limit, and is an estimated value.
B The results for these compounds are semi-quantitative.

The following target analytes were detected in the following method blanks:

Method Blank ID	Instrument	Date Analyzed	Analyte	Result µg/L
MWG1103	HP5973G	11/03/99	Bromomethane	0.6 J

These results are within QC limits. Bromomethane was not detected in any of the samples associated with this method blank.

No target analytes were detected in the storage blanks associated with these samples.

All surrogate recoveries were within QC limits with the following exceptions:

Sample ID	Laboratory Sample ID	Surrogate	Percent Recovery	QC Limit Percent Recovery
WNC9903	AB25203	1,2-dichloroethane-d4	141	76 - 114

All MS/MSD results were within QC limits with the following exceptions:

Sample ID	Laboratory Sample ID	Analyte	MS %Rec	MSD % Rec	QC Limit
WNC9905	AB25261	1,2-dibromo-3-chloropropane	69	71	75 - 130

All internal standard areas and retention times were within QC limits.

The following LCS analytes failed to meet criteria (60 to 140 % recovery):

LCS File ID	Date	Analyte	% Rec	QC Limit
LWC1103	11/03/99	Dichlorodifluoromethane	46	60 - 140
LWH1106A	11/06/99	Dichlorodifluoromethane	48	60 - 140
LWJ1109	11/09/99	Dichlorodifluoromethane	47	3.0 - 7.0

Accurate spiking of dichlorodifluoromethane is difficult because it is a gas at room temperature.

All samples were analyzed within the holding time.

RESULTS SUMMARY

The results can be found on the Summary of Results report.

Any questions in reference to this data package may be addressed to Joseph Naughten at (510) 412-2358.

Glossary of Terms

Method Blanks

A laboratory method blank is laboratory reagent water or sand with all reagents, surrogates, and internal standards added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during analysis.

Storage Blanks

A storage blank is laboratory reagent water that is stored in the laboratory refrigerator for one week. All reagents, surrogates, and internal standards are added at the time of analysis and it is processed through the same sample preparation and analytical procedures as the other blanks. The storage blank is used to determine the level of contamination introduced by the laboratory during sample storage.

Surrogates

Surrogates are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples. All samples are spiked with surrogate compounds prior to analysis. Surrogate percent recovery (%R) provides information about both the laboratory performance on individual samples and the possible effects of the sample matrix on the analytical results.

Matrix Spike and Spike Duplicate Analysis

Matrix spike sample and spike duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

Internal Standards

Internal standards are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but not normally found in environmental samples. All samples are spiked with internal standard compounds prior to analysis. Internal standard recoveries and retention times provide information about both the instrument performance on individual samples and the possible effects of the sample matrix on the analytical results.

Laboratory Control Samples

Laboratory control samples (LCSs) are analyzed daily to demonstrate comparability of the continuing calibration standard. It is equivalent to the continuing calibration standard, but it is obtained from an independent source.

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

	5-2			B			5-3			B			2-5		
Sample No.	1			2			3			4			5		
Sample ID	WNC9901			WNC9902			WNC9903			WNC9904			WNC9905		
Lab Sample ID	AB25195			AB25196			AB25203			AB25204			AB25261		
Date of Collection	10/26/99			10/26/99			10/27/99			10/27/99			10/28/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
Dichlorodifluoromethane	1	U		1	U		1	U		1	U		1	U	
Chloromethane	1	U		1	U		1	U		1	U		1	U	
Vinyl Chloride	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
Bromomethane	1	U		1	U		1	U		1	U		1	U	
Chloroethane	1	U		1	U		1	U		1	U		1	U	
Trichlorofluoromethane	1	U		1	U		1	U		1	U		1	U	
1,1-Dichloroethene	1	U		1	U		1	U		1	U		1	U	
Carbon Disulfide	1	U		1	U		1	U		1	U		1	U	
Acetone	10	U		10	U		10	U		10	U		10	U	
Methylene Chloride	1	U		1	U		1	U		1	U		1	U	
trans-1,2-Dichloroethene	1	U		1	U		1	U		1	U		1	U	
Methyl-t-Butyl Ether	1	U		1	U		1	U		1	U		1	U	
1,1-Dichloroethane	1	U		1	U		1	U		1	U		1	U	
cis-1,2-Dichloroethene	1	U		1	U		1	U		1	U		0.5	J	A
2-Butanone	10	U		10	U		10	U		10	U		10	U	
Chloroform	1	U		1	U		1	U		1	U		1	U	
1,2-Dichloroethane	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,1-Trichloroethane	1	U		1	U		1	U		1	U		1	U	
Carbon Tetrachloride	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
Benzene	1	U		1	U		1	U		1	U		1	U	
Trichloroethene	1	U		1	U		0.9	J	A	1	U		4		
1,2-Dichloropropane	1	U		1	U		1	U		1	U		1	U	
Bromodichloromethane	1	U		1	U		1	U		1	U		1	U	
cis-1,3-Dichloropropene	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
trans-1,3-Dichloropropene	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-Trichloroethane	1	U		1	U		1	U		1	U		1	U	
Dibromochloromethane	1	U		1	U		1	U		1	U		1	U	
4-Methyl-2-pentanone	10	U		10	U		10	U		10	U		10	U	
Toluene	1	U		1	U		1	U		1	U		1	U	
1,3-Dichloropropane	1	U		1	U		1	U		1	U		1	U	
2-Hexanone	10	U		10	U		10	U		10	U		10	U	
Tetrachloroethene	110			1	U		500			1	U		150		
1,2-Dibromoethane	1	U		1	U		1	U		1	U		1	U	
Chlorobenzene	1	U		1	U		1	U		1	U		1	U	
Ethyl Benzene	1	U		1	U		1	U		1	U		1	U	
Xylene (para & meta-)	1	U		1	U		1	U		1	U		1	U	
Xylene (ortho-)	1	U		1	U		1	U		1	U		1	U	
Styrene	1	U		1	U		1	U		1	U		1	U	
Bromoform	1	U		1	U		1	U		1	U		1	U	
1,1,2,2-Tetrachloroethane	1	U		1	U		1	U		1	U		1	U	
1,2,3-Trichloropropane	1	U		1	U		1	U		1	U		1	U	
1,3-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,4-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,2-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,2-Dibromo-3-chloropropane	2	U		2	U		2	U		2	U		2	U	
Tetrahydrofuran	2	U		2	U		2	U		2	U		2	U	

Q-Laboratory Data Qualifiers

J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

Sample No.	6			7			8			9			10		
Sample ID	WNC9906			WNC9907			WNC9908			WNC9909			WNC9910		
Lab Sample ID	AB25262			AB25263			AB25264			AB25265			AB25266		
Date of Collection	10/28/99			10/28/99			10/28/99			10/29/99			10/29/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
Dichlorodifluoromethane	1 U			1 U			1 U			1 U			1 U		
Chloromethane	1 U			1 U			1 U			1 U			1 U		
Vinyl Chloride	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
Bromomethane	1 U			1 U			1 U			1 U			1 U		
Chloroethane	1 U			1 U			1 U			1 U			1 U		
Trichlorofluoromethane	1 U			1 U			1 U			1 U			1 U		
1,1-Dichloroethene	0.5 U	J	A	1 U			1 U			1 U			1 U		
Carbon Disulfide	1 U			1 U			1 U			1 U			1 U		
Acetone	10 U			10 U			10 U			10 U			10 U		
Methylene Chloride	1 U			1 U			1 U			1 U			1 U		
trans-1,2-Dichloroethene	1 U			1 U			1 U			1 U			1 U		
Methyl-t-Butyl Ether	1 U			1 U			1 U			0.9 U	J	A	0.8 U	J	A
1,1-Dichloroethane	1 U			1 U			1 U			1 U			1 U		
cis-1,2-Dichloroethene	0.5 U	J	A	0.5 U	J	A	1 U			1 U			1 U		
2-Butanone	10 U			10 U			10 U			10 U			10 U		
Chloroform	1 U			1 U			1 U			1 U			1 U		
1,2-Dichloroethane	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
1,1,1-Trichloroethane	1 U			1 U			1 U			1 U			1 U		
Carbon Tetrachloride	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
Benzene	1 U			1 U			1 U			1 U			1 U		
Trichloroethene	7			6			1 U			2			2		
1,2-Dichloropropane	1 U			1 U			1 U			1 U			1 U		
Bromodichloromethane	1 U			1 U			1 U			1 U			1 U		
cis-1,3-Dichloropropene	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
trans-1,3-Dichloropropene	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
1,1,2-Trichloroethane	1 U			1 U			1 U			1 U			1 U		
Dibromochloromethane	1 U			1 U			1 U			1 U			1 U		
4-Methyl-2-pentanone	10 U			10 U			10 U			10 U			10 U		
Toluene	1 U			1 U			1 U			1 U			1 U		
1,3-Dichloropropane	1 U			1 U			1 U			1 U			1 U		
2-Hexanone	10 U			10 U			10 U			10 U			10 U		
Tetrachloroethene	18			18			1 U			31			43		
1,2-Dibromoethane	1 U			1 U			1 U			1 U			1 U		
Chlorobenzene	1 U			1 U			1 U			1 U			1 U		
Ethyl Benzene	1 U			1 U			1 U			1 U			1 U		
Xylene (para & meta-)	1 U			1 U			1 U			1 U			1 U		
Xylene (ortho-)	1 U			1 U			1 U			1 U			1 U		
Styrene	1 U			1 U			1 U			1 U			1 U		
Bromoform	1 U			1 U			1 U			1 U			1 U		
1,1,2,2-Tetrachloroethane	1 U			1 U			1 U			1 U			1 U		
1,2,3-Trichloropropane	1 U			1 U			1 U			1 U			1 U		
1,3-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,4-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,2-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,2-Dibromo-3-chloropropane	2 U			2 U			2 U			2 U			2 U		
Tetrahydrofuran	2 U			2 U			2 U			2 U			2 U		

Q-Laboratory Data Qualifiers J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

Sample No.	11			12			13			14			15		
Sample ID	WNC9911			WNC9912			WNC9913			WNC9914			WNC9915		
Lab Sample ID	AB25267			AB25268			AB25269			AB25362			AB25363		
Date of Collection	10/29/99			10/29/99			10/29/99			11/1/99			11/1/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
Dichlorodifluoromethane	1 U			1 U			1 U			1 U			1 U		
Chloromethane	1 U			1 U			1 U			1 U			1 U		
Vinyl Chloride	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
Bromomethane	1 U			1 U			1 U			1 U			1 U		
Chloroethane	1 U			1 U			1 U			1 U			1 U		
Trichlorofluoromethane	1 U			1 U			1 U			1 U			1 U		
1,1-Dichloroethene	1 U			0.7	J	A	0.7	J	A	1 U			1 U		
Carbon Disulfide	1 U			1 U			1 U			1 U			1 U		
Acetone	10 U			10 U			10 U			10 U			10 U		
Methylene Chloride	1 U			1 U			1 U			1 U			1 U		
trans-1,2-Dichloroethene	1 U			1 U			1 U			1 U			1 U		
Methyl-t-Butyl Ether	1 U			1 U			1 U			1 U			1 U		
1,1-Dichloroethane	1 U			2			2			1 U			0.5	J	A
cis-1,2-Dichloroethene	1 U			0.5	J	A	0.5	J	A	1 U			1 U		
2-Butanone	10 U			10 U			10 U			10 U			10 U		
Chloroform	1 U			1 U			1 U			1 U			1 U		
1,2-Dichloroethane	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
1,1,1-Trichloroethane	1 U			1 U			1 U			1 U			1 U		
Carbon Tetrachloride	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
Benzene	1 U			1 U			1 U			1 U			1 U		
Trichloroethene	1 U			8			6			2			1		
1,2-Dichloropropane	1 U			1 U			1 U			1 U			1 U		
Bromodichloromethane	1 U			1 U			1 U			1 U			1 U		
cis-1,3-Dichloropropene	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
trans-1,3-Dichloropropene	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
1,1,2-Trichloroethane	1 U			1 U			1 U			1 U			1 U		
Dibromochloromethane	1 U			1 U			1 U			1 U			1 U		
4-Methyl-2-pentanone	10 U			10 U			10 U			10 U			10 U		
Toluene	1 U			1 U			1 U			1 U			1 U		
1,3-Dichloropropane	1 U			1 U			1 U			1 U			1 U		
2-Hexanone	10 U			10 U			10 U			10 U			10 U		
Tetrachloroethene	1 U			310			280			39			29		
1,2-Dibromoethane	1 U			1 U			1 U			1 U			1 U		
Chlorobenzene	1 U			1 U			1 U			1 U			1 U		
Ethyl Benzene	1 U			1 U			1 U			1 U			1 U		
Xylene (para & meta-)	1 U			1 U			1 U			1 U			1 U		
Xylene (ortho-)	1 U			1 U			1 U			1 U			1 U		
Styrene	1 U			1 U			1 U			1 U			1 U		
Bromoform	1 U			1 U			1 U			1 U			1 U		
1,1,2,2-Tetrachloroethane	1 U			1 U			1 U			1 U			1 U		
1,2,3-Trichloropropane	1 U			1 U			1 U			1 U			1 U		
1,3-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,4-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,2-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,2-Dibromo-3-chloropropane	2 U			2 U			2 U			2 U			2 U		
Tetrahydrofuran	2 U			2 U			2 U			2 U			2 U		

Q-Laboratory Data Qualifiers J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

	3-4			B			6-2			6-3			B		
Sample No.	16			17			18			19			20		
Sample ID	WNC9916			WNC9917			WNC9918			WNC9919			WNC9920		
Lab Sample ID	AB25364			AB25365			AB25378			AB25379			AB25380		
Date of Collection	11/1/99			11/1/99			11/2/99			11/2/99			11/2/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
Dichlorodifluoromethane	1	U		1	U		1	U		1	U		1	U	
Chloromethane	1	U		1	U		1	U		1	U		1	U	
Vinyl Chloride	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
Bromomethane	1	U		1	U		1	U		1	U		1	U	
Chloroethane	1	U		1	U		1	U		1	U		1	U	
Trichlorofluoromethane	1	U		1	U		1	U		1	U		1	U	
1,1-Dichloroethene	1	U		1	U		1	U		1	U		1	U	
Carbon Disulfide	1	U		1	U		1	U		1	U		1	U	
Acetone	10	U		10	U		10	U		10	U		10	U	
Methylene Chloride	1	U		1	U		1	U		1	U		1	U	
trans-1,2-Dichloroethene	1	U		1	U		1	U		1	U		1	U	
Methyl-t-Butyl Ether	1	U		1	U		1	U		1	U		1	U	
1,1-Dichloroethane	(2)			1	U		1	U		1	U		1	U	
cis-1,2-Dichloroethene	8			1	U		1	U		1	U		1	U	
2-Butanone	10	U		10	U		10	U		10	U		10	U	
Chloroform	1	U		1	U		1	U		1	U		1	U	
1,2-Dichloroethane	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,1-Trichloroethane	1	U		1	U		1	U		1	U		1	U	
Carbon Tetrachloride	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
Benzene	1	U		1	U		1	U		1	U		1	U	
Trichloroethene	5			1	U		1			2			1	U	
1,2-Dichloropropane	1	U		1	U		1	U		1	U		1	U	
Bromodichloromethane	1	U		1	U		1	U		1	U		1	U	
cis-1,3-Dichloropropene	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
trans-1,3-Dichloropropene	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-Trichloroethane	1	U		1	U		1	U		1	U		1	U	
Dibromochloromethane	1	U		1	U		1	U		1	U		1	U	
4-Methyl-2-pentanone	10	U		10	U		10	U		10	U		10	U	
Toluene	1	U		1	U		1	U		1	U		1	U	
1,3-Dichloropropane	1	U		1	U		1	U		1	U		1	U	
2-Hexanone	10	U		10	U		10	U		10	U		10	U	
Tetrachloroethene	240			1	U		40			130			1	U	
1,2-Dibromoethane	1	U		1	U		1	U		1	U		1	U	
Chlorobenzene	1	U		1	U		1	U		1	U		1	U	
Ethyl Benzene	1	U		1	U		1	U		1	U		1	U	
Xylene (para & meta-)	1	U		1	U		1	U		1	U		1	U	
Xylene (ortho-)	1	U		1	U		1	U		1	U		1	U	
Styrene	1	U		1	U		1	U		1	U		1	U	
Bromoform	1	U		1	U		1	U		1	U		1	U	
1,1,2,2-Tetrachloroethane	1	U		1	U		1	U		1	U		1	U	
1,2,3-Trichloropropane	1	U		1	U		1	U		1	U		1	U	
1,3-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,4-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,2-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,2-Dibromo-3-chloropropane	2	U		2	U		2	U		2	U		2	U	
Tetrahydrofuran	2	U		2	U		2	U		2	U		2	U	

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J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

Sample No. Sample ID Lab Sample ID Date of Collection Units	Method Blank MWG1103 N/A N/A ug/L			Method Blank MGW1104A N/A N/A ug/L			Method Blank MWH1106A N/A N/A ug/L			Method Blank MWH1109 N/A N/A ug/L			Method Blank MWH1110A N/A N/A ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
Dichlorodifluoromethane	1 U			1 U			1 U			1 U			1 U		
Chloromethane	1 U			1 U			1 U			1 U			1 U		
Vinyl Chloride	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
Bromomethane	0.6 U	J	A	1 U			1 U			1 U			1 U		
Chloroethane	1 U			1 U			1 U			1 U			1 U		
Trichlorofluoromethane	1 U			1 U			1 U			1 U			1 U		
1,1-Dichloroethene	1 U			1 U			1 U			1 U			1 U		
Carbon Disulfide	1 U			1 U			1 U			1 U			1 U		
Acetone	10 U			10 U			10 U			10 U			10 U		
Methylene Chloride	1 U			1 U			1 U			1 U			1 U		
trans-1,2-Dichloroethene	1 U			1 U			1 U			1 U			1 U		
Methyl-t-Butyl Ether	1 U			1 U			1 U			1 U			1 U		
1,1-Dichloroethane	1 U			1 U			1 U			1 U			1 U		
cis-1,2-Dichloroethene	1 U			1 U			1 U			1 U			1 U		
2-Butanone	10 U			10 U			10 U			10 U			10 U		
Chloroform	1 U			1 U			1 U			1 U			1 U		
1,2-Dichloroethane	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
1,1,1-Trichloroethane	1 U			1 U			1 U			1 U			1 U		
Carbon Tetrachloride	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
Benzene	1 U			1 U			1 U			1 U			1 U		
Trichloroethene	1 U			1 U			1 U			1 U			1 U		
1,2-Dichloropropane	1 U			1 U			1 U			1 U			1 U		
Bromodichloromethane	1 U			1 U			1 U			1 U			1 U		
cis-1,3-Dichloropropene	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
trans-1,3-Dichloropropene	0.5 U			0.5 U			0.5 U			0.5 U			0.5 U		
1,1,2-Trichloroethane	1 U			1 U			1 U			1 U			1 U		
Dibromochloromethane	1 U			1 U			1 U			1 U			1 U		
4-Methyl-2-pentanone	10 U			10 U			10 U			10 U			10 U		
Toluene	1 U			1 U			1 U			1 U			1 U		
1,3-Dichloropropane	1 U			1 U			1 U			1 U			1 U		
2-Hexanone	10 U			10 U			10 U			10 U			10 U		
Tetrachloroethene	1 U			1 U			1 U			1 U			1 U		
1,2-Dibromoethane	1 U			1 U			1 U			1 U			1 U		
Chlorobenzene	1 U			1 U			1 U			1 U			1 U		
Ethyl Benzene	1 U			1 U			1 U			1 U			1 U		
Xylene (para & meta-)	1 U			1 U			1 U			1 U			1 U		
Xylene (ortho-)	1 U			1 U			1 U			1 U			1 U		
Styrene	1 U			1 U			1 U			1 U			1 U		
Bromoform	1 U			1 U			1 U			1 U			1 U		
1,1,2,2-Tetrachloroethane	1 U			1 U			1 U			1 U			1 U		
1,2,3-Trichloropropane	1 U			1 U			1 U			1 U			1 U		
1,3-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,4-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,2-Dichlorobenzene	1 U			1 U			1 U			1 U			1 U		
1,2-Dibromo-3-chloropropane	2 U			2 U			2 U			2 U			2 U		
Tetrahydrofuran	2 U			2 U			2 U			2 U			2 U		

Q-Laboratory Data Qualifiers

J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

Sample No. Sample ID Lab Sample ID Date of Collection Units Analyte	Method Blank MWJ1109 N/A N/A ug/L Result Q Cmt			Method Blank MWJ1110 N/A N/A ug/L Result Q Cmt			Storage Blank VHBLK1025 SB1101 N/A ug/L Result Q Cmt			Storage Blank VHBLK1103 SB111299 N/A ug/L Result Q Cmt			Storage Blank VHBLK1112 SBJ11122 N/A ug/L Result Q Cmt		
Dichlorodifluoromethane	1	U		1	U		1	U		1	U		1	U	
Chloromethane	1	U		1	U		1	U		1	U		1	U	
Vinyl Chloride	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
Bromomethane	1	U		1	U		1	U		1	U		1	U	
Chloroethane	1	U		1	U		1	U		1	U		1	U	
Trichlorofluoromethane	1	U		1	U		1	U		1	U		1	U	
1,1-Dichloroethene	1	U		1	U		1	U		1	U		1	U	
Carbon Disulfide	1	U		1	U		1	U		1	U		1	U	
Acetone	10	U		10	U		10	U		10	U		10	U	
Methylene Chloride	1	U		1	U		1	U		1	U		1	U	
trans-1,2-Dichloroethene	1	U		1	U		1	U		1	U		1	U	
Methyl-t-Butyl Ether	1	U		1	U		1	U		1	U		1	U	
1,1-Dichloroethane	1	U		1	U		1	U		1	U		1	U	
cis-1,2-Dichloroethene	1	U		1	U		1	U		1	U		1	U	
2-Butanone	10	U		10	U		10	U		10	U		10	U	
Chloroform	1	U		1	U		1	U		1	U		1	U	
1,2-Dichloroethane	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,1-Trichloroethane	1	U		1	U		1	U		1	U		1	U	
Carbon Tetrachloride	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
Benzene	1	U		1	U		1	U		1	U		1	U	
Trichloroethene	1	U		1	U		1	U		1	U		1	U	
1,2-Dichloropropane	1	U		1	U		1	U		1	U		1	U	
Bromodichloromethane	1	U		1	U		1	U		1	U		1	U	
cis-1,3-Dichloropropene	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
trans-1,3-Dichloropropene	0.5	U		0.5	U		0.5	U		0.5	U		0.5	U	
1,1,2-Trichloroethane	1	U		1	U		1	U		1	U		1	U	
Dibromochloromethane	1	U		1	U		1	U		1	U		1	U	
4-Methyl-2-pentanone	10	U		10	U		10	U		10	U		10	U	
Toluene	1	U		1	U		1	U		1	U		1	U	
1,3-Dichloropropane	1	U		1	U		1	U		1	U		1	U	
2-Hexanone	10	U		10	U		10	U		10	U		10	U	
Tetrachloroethene	1	U		1	U		1	U		1	U		1	U	
1,2-Dibromoethane	1	U		1	U		1	U		1	U		1	U	
Chlorobenzene	1	U		1	U		1	U		1	U		1	U	
Ethyl Benzene	1	U		1	U		1	U		1	U		1	U	
Xylene (para & meta-)	1	U		1	U		1	U		1	U		1	U	
Xylene (ortho-)	1	U		1	U		1	U		1	U		1	U	
Styrene	1	U		1	U		1	U		1	U		1	U	
Bromoform	1	U		1	U		1	U		1	U		1	U	
1,1,2,2-Tetrachloroethane	1	U		1	U		1	U		1	U		1	U	
1,2,3-Trichloropropane	1	U		1	U		1	U		1	U		1	U	
1,3-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,4-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,2-Dichlorobenzene	1	U		1	U		1	U		1	U		1	U	
1,2-Dibromo-3-chloropropane	2	U		2	U		2	U		2	U		2	U	
Tetrahydrofuran	2	U		2	U		2	U		2	U		2	U	

Q-Laboratory Data Qualifiers

J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

Sample No. Sample ID Lab Sample ID Date of Collection Units Analyte	Quantitation Limit N/A N/A ug/L Result	Q	Cmt
Dichlorodifluoromethane	1		
Chloromethane	1		
Vinyl Chloride	0.5		
Bromomethane	1		
Chloroethane	1		
Trichlorofluoromethane	1		
1,1-Dichloroethene	1		
Carbon Disulfide	1		
Acetone	10		
Methylene Chloride	1		
trans-1,2-Dichloroethene	1		
Methyl-t-Butyl Ether	1		
1,1-Dichloroethane	1		
cis-1,2-Dichloroethene	1		
2-Butanone	10		
Chloroform	1		
1,2-Dichloroethane	0.5		
1,1,1-Trichloroethane	1		
Carbon Tetrachloride	0.5		
Benzene	1		
Trichloroethene	1		
1,2-Dichloropropane	1		
Bromodichloromethane	1		
cis-1,3-Dichloropropene	0.5		
trans-1,3-Dichloropropene	0.5		
1,1,2-Trichloroethane	1		
Dibromochloromethane	1		
4-Methyl-2-pentanone	10		
Toluene	1		
1,3-Dichloropropane	1		
2-Hexanone	10		
Tetrachloroethene	1		
1,2-Dibromoethane	1		
Chlorobenzene	1		
Ethyl Benzene	1		
Xylene (para & meta-)	1		
Xylene (ortho-)	1		
Styrene	1		
Bromoform	1		
1,1,2,2-Tetrachloroethane	1		
1,2,3-Trichloropropane	1		
1,3-Dichlorobenzene	1		
1,4-Dichlorobenzene	1		
1,2-Dichlorobenzene	1		
1,2-Dibromo-3-chloropropane	2		
Tetrahydrofuran	2		

Q-Laboratory Data Qualifiers J-The amount detected is an estimated value.

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Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

Sample No.	1				2				3				4				5			
Sample ID	WNC9901				WNC9902				WNC9903				WNC9904				WNC9905			
Lab Sample ID	AB25195				AB25196				AB25203				AB25204				AB25261			
Date of Collection	10/26/99				10/26/99				10/27/99				10/27/99				10/28/99			
Units	ug/L				ug/L				ug/L				ug/L				ug/L			
Analyte	Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt	
Dichlorofluoromethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
1,1,2-Trichlorotrifluoroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
Acrylonitrile	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B
1-Bromo-2-chloroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B

Sample No.	6				7				8				9				10			
Sample ID	WNC9906				WNC9907				WNC9908				WNC9909				WNC9910			
Lab Sample ID	AB25262				AB25263				AB25264				AB25265				AB25266			
Date of Collection	10/28/99				10/28/99				10/28/99				10/29/99				10/29/99			
Units	ug/L				ug/L				ug/L				ug/L				ug/L			
Analyte	Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt	
Dichlorofluoromethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
1,1,2-Trichlorotrifluoroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
Acrylonitrile	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B
1-Bromo-2-chloroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B

Sample No.	11				12				13				14				15			
Sample ID	WNC9911				WNC9912				WNC9913				WNC9914				WNC9915			
Lab Sample ID	AB25267				AB25268				AB25269				AB25362				AB25363			
Date of Collection	10/29/99				10/29/99				10/29/99				11/1/99				11/1/99			
Units	ug/L				ug/L				ug/L				ug/L				ug/L			
Analyte	Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt	
Dichlorofluoromethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
1,1,2-Trichlorotrifluoroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
Acrylonitrile	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B
1-Bromo-2-chloroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B

Sample No.	16				17				18				19				20			
Sample ID	WNC9916				WNC9917				WNC9918				WNC9919				WNC9920			
Lab Sample ID	AB25364				AB25365				AB25378				AB25379				AB25380			
Date of Collection	11/1/99				11/1/99				11/2/99				11/2/99				11/2/99			
Units	ug/L				ug/L				ug/L				ug/L				ug/L			
Analyte	Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt	
Dichlorofluoromethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
1,1,2-Trichlorotrifluoroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
Acrylonitrile	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B
1-Bromo-2-chloroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B

Q-Laboratory Data Qualifiers

J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

**EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS**

Case Number: R00S05

Site: Whittier Narrows

SDG: 99300A

Date: 12/03/99

Analysis: GC/MS Volatiles

Matrix: Water

Sample No. Sample ID Lab Sample ID Date of Collection Units Analyte	Method Blank MWG1103 N/A N/A ug/L				Method Blank MGW1104A N/A N/A ug/L				Method Blank MWH1106A N/A N/A ug/L				Method Blank MWH1109 N/A N/A ug/L				Method Blank MWH1110A N/A N/A ug/L			
	Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt	
Dichlorofluoromethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
1,1,2-Trichlorotrifluoroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
Acrylonitrile	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B
1-Bromo-2-chloroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B

Sample No. Sample ID Lab Sample ID Date of Collection Units Analyte	Method Blank MWJ1109 N/A N/A ug/L				Method Blank MWJ1110 N/A N/A ug/L				Storage Blank VHBLK1025 SB1101 N/A ug/L				Storage Blank VHBLK1103 SB111299 N/A ug/L				Storage Blank VHBLK1112 SBJ11122 N/A ug/L			
	Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt		Result	Q	Cmt	
Dichlorofluoromethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
1,1,2-Trichlorotrifluoroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B
Acrylonitrile	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B	50	U	J	B
1-Bromo-2-chloroethane	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B	5	U	J	B

Sample No. Sample ID Lab Sample ID Date of Collection Units Analyte	Quantitation Limit N/A N/A ug/L			
	Result	Q	Cmt	
Dichlorofluoromethane	5	J	B	
1,1,2-Trichlorotrifluoroethane	5	J	B	
Acrylonitrile	50	J	B	
1-Bromo-2-chloroethane	5	J	B	

Q-Laboratory Data Qualifiers J-The amount detected is an estimated value.

U-This compound was analyzed for, but not detected. Cmt-See Report Narrative for Comment

Cmt-See Report Narrative for Comment

MASTER FILE: voa_h2oc.wk4, version 1.0, 11/16/99, Lotus 123 97

Tentatively Identified Compound (LSC) summary

Operator ID: BW Date Acquired: 3 Nov 1999 14:46
Data File: C:\HPCHEM\1\DATA\991103\00G0012.D
Name: AB25195 WNC9901
Misc: 25 mL
Method: C:\HPCHEM\1\METHODS\VWG1103.M (RTE Integrator)
Title: VOA Standards for 5 point calibration
Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
00G0012.D VWG1103.M	Thu Nov 18 11:07:20 1999					HP5973A		

000058

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\991104\00G0017.D Vial: 11
Acq On : 4 Nov 1999 15:54 Operator:
Sample : AB25196 WNC9902 Inst : HP5973G
Misc : 25 mL Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Method : C:\HPCHEM\1\METHODS\VWG1104.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

00G0017.D VWG1104.M Thu Nov 18 11:03:12 1999 HP5973A

000075

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 4 Nov 1999 16:41
 Data File: C:\HPCHEM\1\DATA\991104\00G0018.D
 Name: AB25203 WNC9903
 Misc: 25 mL
 Method: C:\HPCHEM\1\METHODS\VWG1104.M (RTE Integrator)
 Title: VOA Standards for 5 point calibration
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
unknown	6.14	2.2	ug/L	298307	ISTD01	5.78	685679	5.0

00G0018.D VWG1104.M Thu Nov 18 11:01:22 1999 HP5973A

→ INTEGRATED BASELINE

JAM 12/2/99

000087

Tentatively Identified Compound (LSC) summary

Operator ID: Date Acquired: 4 Nov 1999 18:13
 Data File: C:\HPCHEM\1\DATA\991104\00G0020.D
 Name: AB25204 WNC9904
 Misc: 25 mL
 Method: C:\HPCHEM\1\METHODS\VWG1104.M (RTE Integrator)
 Title: VOA Standards for 5 point calibration
 Library Searched: C:\DATABASE\NBS75K.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
00G0020.D VWG1104.M	Thu Nov 18 10:57:51 1999					HP5973A		

000105

Tentatively Identified Compound (LSC) summary

Operator ID: HC Date Acquired: 9 Nov 1999 14:25
 Data File: C:\HPCHEM\1\DATA\991109W\00J011.D
 Name: AB25203dl WNC9903dl 1ml to 25ml
 Misc: EM 1306, 25ml purge
 Method: C:\HPCHEM\1\METHODS\VOA1109F.M (RTE Integrator)
 Title: Volatile Organic Analysis - VL DL
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
unknown siloxane	14.26	0.3	ug/L	182654	ISTD03	11.63	2649970	5.0

00J011.D VOA1109F.M Thu Dec 02 11:19:51 1999

000117

Library Search Compound Report

Data File : C:\HPCHEM\1\DATA\991104\00G0021.D Vial: 15
Acq On : 4 Nov 1999 18:56 Operator:
Sample : AB25262 WNC9906 Inst : HP5973G
Misc : 25 mL Multiplr: 1.00
MS Integration Params: LSCINT.P
Quant Method : C:\HPCHEM\1\METHODS\VWG1104.M (RTE Integrator)
Title : VOA Standards for 5 point calibration
Library : C:\DATABASE\NBS75K.L

No Library Search Compounds Detected

00G0021.D VWG1104.M Thu Nov 18 10:55:45 1999 HP5973A

000137

Tentatively Identified Compound (LSC) summary

Operator ID: HC Date Acquired: 10 Nov 1999 13:10
 Data File: C:\HPCHEM\1\DATA\991110W\00J0022.D
 Name: AB25263 WNC9907
 Misc: EM 1306, 25ml purge
 Method: C:\HPCHEM\1\METHODS\VOA1110F.M (RTE Integrator)
 Title: Volatile Organic Analysis - VLDL
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
Carbon dioxide	1.44	118.1	ug/L	11572300	ISTD01	5.74	490014	5.0

00J0022.D VOA1110F.M Thu Dec 02 11:28:21 1999

gmn 12/2/99

000150

Tentatively Identified Compound (LSC) summary

Operator ID: HC Date Acquired: 9 Nov 1999 19:53
Data File: C:\HPCHEM\1\DATA\991109W\00J018.D
Name: AB25264 WNC9908
Misc: EM 1306, 25ml purge
Method: C:\HPCHEM\1\METHODS\VOA1109F.M (RTE Integrator)
Title: Volatile Organic Analysis - VLDL
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
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00J018.D VOA1109F.M	Thu Dec 02 11:31:42 1999							
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000158

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 15:34
 Data File: C:\HPCHEM\1\DATA\110699W\OOH0120.D
 Name: AB25265 WNC9909
 Misc: EM1212, 1uL ISA037,
 Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

OOH0120.D VWH1106A.M	Mon Nov 08	13:36:19	1999					

000168

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 16:19
 Data File: C:\HPCHEM\1\DATA\110699W\OOH0121.D
 Name: AB25266 WNC9910
 Misc: EM1212, 1uL ISA037,
 Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
OOH0121.D VWH1106A.M	Mon Nov 08 13:43:46 1999							

000186

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 17:04
 Data File: C:\HPCHEM\1\DATA\110699W\OOH0122.D
 Name: AB25267 WNC9911
 Misc: EM1212, 1uL ISA037,
 Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

OOH0122.D VWH1106A.M			Mon Nov 08 13:50:28 1999					

000203

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 17:50
 Data File: C:\HPCHEM\1\DATA\110699W\OOH0123.D
 Name: AB25268 WNC9912
 Misc: EM1212, 1uL ISA037,
 Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

OOH0123.D VWH1106A.M								
		Mon Nov 08	13:57:20	1999				

000214

Tentatively Identified Compound (LSC) summary

Operator ID: MCND Date Acquired: 9 Nov 1999 21:45
 Data File: C:\HPCHEM\1\DATA\110999W\00H0136.D
 Name: AB25269 WNC9913
 Misc: EM1353, 1uL ISA037, 1uL SAS259
 Method: C:\HPCHEM\1\METHODS\VWH1109.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

00H0136.D VWH1109.M			Wed Nov 10	07:33:31	1999			

000232

Tentatively Identified Compound (LSC) summary

Operator ID: MCND Date Acquired: 9 Nov 1999 22:30
Data File: C:\HPCHEM\1\DATA\110999W\00H0137.D
Name: AB25362 WNC9914
Misc: EM1353, 1uL ISA037, 1uL SAS259
Method: C:\HPCHEM\1\METHODS\VWH1109.M (RTE Integrator)
Title: Volatile Organic Analysis - R9LAB305 25ml
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

00H0137.D VWH1109.M		Wed Nov 10 07:44:47 1999						

000250

Tentatively Identified Compound (LSC) summary

Operator ID: MCND Date Acquired: 9 Nov 1999 23:16
 Data File: C:\HPCHEM\1\DATA\110999W\00H0138.D
 Name: AB25363 WNC9915
 Misc: EM1353, 1uL ISA037, 1uL SAS259
 Method: C:\HPCHEM\1\METHODS\VWH1109.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

00H0138.D VWH1109.M		Wed Nov 10	08:04:00	1999				

000268

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 18:35
 Data File: C:\HPCHEM\1\DATA\110699W\OOH0124.D
 Name: AB25364 WNC9916
 Misc: EM1212, 1uL ISA037,
 Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc
OOH0124.D VWH1106A.M								

Mon Nov 08 14:01:11 1999

000288

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 19:20
 Data File: C:\HPCHEM\1\DATA\110699W\OOH0125.D
 Name: AB25365 WNC9917
 Misc: EM1212, 1uL ISA037,
 Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

OOH0125.D VWH1106A.M		Mon Nov 08 14:08:00 1999						

000305

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 20:06
Data File: C:\HPCHEM\1\DATA\110699W\OOH0126.D
Name: AB25378 WNC9918
Misc: EM1212, 1uL ISA037,
Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
Title: Volatile Organic Analysis - R9LAB305 25ml
Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

OOH0126.D VWH1106A.M			Mon Nov 08 14:14:02 1999					

000314

Tentatively Identified Compound (LSC) summary

Operator ID: EBC Date Acquired: 6 Nov 1999 20:51
 Data File: C:\HPCHEM\1\DATA\110699W\OOH0127.D
 Name: AB25379 WNC9919
 Misc: EM1212, 1uL ISA037,
 Method: C:\HPCHEM\1\METHODS\VWH1106A.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

OOH0127.D VWH1106A.M								
		Mon Nov 08	14:22:11	1999				

000331

Tentatively Identified Compound (LSC) summary

Operator ID: MCND Date Acquired: 10 Nov 1999 00:01
 Data File: C:\HPCHEM\1\DATA\110999W\00H0139.D
 Name: AB25380 WNC9920
 Misc: EM1353, 1uL ISA037, 1uL SAS259
 Method: C:\HPCHEM\1\METHODS\VWH1109.M (RTE Integrator)
 Title: Volatile Organic Analysis - R9LAB305 25ml
 Library Searched: C:\DATABASE\NIST98.L

TIC Top Hit name	RT	EstConc	Units	Area	IntStd	ISRT	ISArea	ISConc

00H0139.D VWH1109.M		Wed Nov 10	08:45:33	1999				

000348

USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER:	R00S05
SAMPLE DELIVERY GROUP:	99300A
PROGRAM:	SUPERFUND
DOCUMENT CONTROL #:	ESTW-9B-2709
DATE:	11/30/99
ANALYSIS:	FLUORIDE, CHLORIDE, NITRITE AS NITROGEN, NITRATE AS NITROGEN, SULFATE AND PERCHLORATE

SAMPLE NUMBERS:

<u>SAMPLE ID</u>	<u>LABORATORY SAMPLE ID</u>
WNC9901	AB25195
WNC9902	AB25196
WNC9903	AB25203
WNC9904	AB25204
WNC9905	AB25261
WNC9906	AB25262
WNC9907	AB25263
WNC9908	AB25264
WNC9909	AB25265
WNC9910	AB25266
WNC9911	AB25267
WNC9912	AB25268
WNC9913	AB25269
WNC9914	AB25362
WNC9915	AB25363
WNC9916	AB25364
WNC9917	AB26365
WNC9918	AB26378
WNC9919	AB25379
WNC9920	AB25380

GENERAL COMMENTS

Twenty water samples were received from the Whittier Narrows Comprehensive Superfund project on 10/27/99, 10/28/99, 10/29/99, 10/30/99, 11/2/99 and 11/3/99.

The requested analyses were fluoride, chloride, nitrite as nitrogen, nitrate as nitrogen and sulfate (EPA Method 300.0) and perchlorate (Region 9 Laboratory SOP 531). All samples were analyzed within the required holding times.

The nitrite-N quantitation limit was raised to 0.5 mg/L for samples with chloride levels above 25 mg/L due to interference from the chloride peak masking the presence of nitrite at low concentrations.

SAMPLE RECEIPT AND PRESERVATION

Samples WNC9914, WNC9915, WNC9916 and WNC9917 were received at a temperature of 9°C on 11/02/99. All custody seals were intact.

QA/QC SUMMARY

No analytes were detected in the blanks associated with this SDG.

Chloride and sulfate concentrations in QC sample WNC9905 and sulfate concentrations in QC sample WNC9901 were greater than 4 times the added spike. No LFM recoveries were calculated for the affected analytes. All other LFM recoveries were within the QC limits.

The RPDs for all duplicates were less than or equal to the 20% QC limit for all analytes where the sample result was greater than or equal to 5 times the quantitation limit. For analytes where the sample result was less than 5 times the quantitation limit the difference between the duplicates was less than the quantitation limit.

All LFB recoveries were within the QC limits.

Questions concerning the data can be answered by Patrick Hirata at (510) 412-2354.

Laboratory Reagent Blanks (LRB)

A laboratory reagent blank is laboratory reagent water or baked sand with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory reagent blank is used to determine the level of contamination introduced by the laboratory during analysis.

Laboratory Fortified Matrix and Laboratory Duplicate Analysis

The laboratory fortified matrix spike sample and laboratory duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

Laboratory Fortified Blank (LFB) Analysis

The laboratory fortified blank is laboratory reagent water or baked sand with a known concentration of the analytes of interest added by the laboratory with all reagents added and carried through the same sample preparation and analytical procedures as the field samples. Poor percent recovery (%R) results may indicate inconsistent laboratory technique.

EPA REGION 9 LABORATORY-RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS

Case Number: R00S05
 Site: Whittier Narrows Comprehensive
 SDG: 99300A
 Date: 11/30/99

Analysis: Anions and Perchlorate
 Matrix: Water

Station Location	1			2			3			4			5			6		
Sample I.D.	WNC9901			WNC9902			WNC9903			WNC9904			WNC9905			WNC9906		
Lab Sample I.D.	AB25195			AB25196			AB25203			AB25204			AB25261			AB25262		
Date of Collection	10/26/99			10/26/99			10/27/99			10/27/99			10/28/99			10/28/99		
Analyte	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Fluoride (mg/L)	0.6			0.1 U			0.7			0.1 U			0.3			0.3		
Chloride (mg/L)	28			1			31			1			54			37		
Sulfate (mg/L)	91			1			140			0.9	J		220			110		
Nitrite-N (mg/L)	0.5 U			0.1 U			0.5 U			0.1 U			1 U			0.5 U		
Nitrate-N (mg/L)	5.3			0.1 U			7.7			0.1 U			5.1			3.1		
Perchlorate (ug/L)	3	J		5 U			5 U			5 U			5 U			5		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample detection limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

Station Location	7			8			9			10			11			12		
Sample I.D.	WNC9907			WNC9908			WNC9909			WNC9910			WNC9911			WNC9912		
Lab Sample I.D.	AB25263			AB25264			AB25265			AB25266			AB25267			AB25268		
Date of Collection	10/28/99			10/28/99			10/29/99			10/29/99			10/29/99			10/29/99		
Analyte	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com	Result	Q	Com
Fluoride (mg/L)	0.3			0.1 U			0.2			0.5			0.1 U			0.4		
Chloride (mg/L)	37			1			45			46			1			48		
Sulfate (mg/L)	110			1			180			160			1			300		
Nitrite-N (mg/L)	0.5 U			0.1 U			0.5 U			0.5 U			0.1 U			0.5 U		
Nitrate-N (mg/L)	3.1			0.1 U			5.9			3.9			0.1 U			7.6		
Perchlorate (ug/L)	4	J		5 U			5 U			5 U			5 U			5 U		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample detection limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

EPA REGION 9 LABORATORY-RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS

Case Number: R00S05
 Site: Whittier Narrows Comprehensive
 SDG: 99300A
 Date: 11/30/99

Analysis: Anions and Perchlorate
 Matrix: Water

Station Location	13	14	15	16	17	18
Sample I.D.	WNC9913	WNC9914	WNC9915	WNC9916	WNC9917	WNC9918
Lab Sample I.D.	AB25269	AB25362	AB25363	AB25364	AB25365	AB25378
Date of Collection	10/29/99	11/01/99	11/01/99	11/01/99	11/01/99	11/02/99
Analyte	Result	Q	Com	Result	Q	Com
Fluoride (mg/L)	0.4			0.6		
Chloride (mg/L)	48			33		
Sulfate (mg/L)	300			100		
Nitrite-N (mg/L)	0.5 U			0.5 U		
Nitrate-N (mg/L)	7.5			3.6		
Perchlorate (ug/L)	3	J		3	J	

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample detection limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

Station Location	19	20	N/A	N/A	N/A	N/A
Sample I.D.	WNC9919	WNC9920	Reagent Blank	Reagent Blank	Reagent Blank	Reagent Blank
Lab Sample I.D.	AB25379	AB25380	N/A	N/A	N/A	N/A
Date of Collection	11/02/99	11/02/99	N/A	N/A	N/A	N/A
Analyte	Result	Q	Com	Result	Q	Com
Fluoride (mg/L)	0.3			0.1 U		
Chloride (mg/L)	39			1 U		
Sulfate (mg/L)	170			1 U		
Nitrite-N (mg/L)	0.5 U			0.1 U		
Nitrate-N (mg/L)	7.0			0.1 U		
Perchlorate (ug/L)	5 U			5 U		

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample detection limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

EPA REGION 9 LABORATORY-RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS

Case Number: R00S05
 Site: Whittier Narrows Comprehensive
 SDG: 99300A
 Date: 11/30/99

Analysis: Anions and Perchlorate
 Matrix: Water

Station Location	N/A			N/A			Quantitation			Quantitation		
Sample I.D.	Reagent Blank			Reagent Blank			Limit			Limit		
Lab Sample I.D.	N/A			N/A			N/A			N/A		
Date of Collection	N/A			N/A			N/A			N/A		
Analyte	Result	Q	Com	Result	Q	Com	Result			Result		
Flouride (mg/L)	0.1 U			0.1 U			0.1					
Chloride (mg/L)	1 U			1 U			1					
Sulfate (mg/L)	1 U			1 U			1					
Nitrite-N (mg/L)	0.1 U			0.1 U			0.1			0.5		
Nitrate-N (mg/L)	0.1 U			0.1 U			0.1					
Perchlorate (ug/L)							5					

Com - Comments refer to the corresponding section in the report narrative for each letter.

N/A - Not Applicable.

N/R - Not Required.

Q - Refer to data qualifiers.

U - The parameter was analyzed for, but was not detected; The associated value is the sample detection limit, adjusted for dilution, if any.

J - The associated value is an estimated quantity.

USEPA REGION 9 LABORATORY
REPORT NARRATIVE

CASE NUMBER: R00S05
SAMPLE DELIVERY GROUP: 99300A
PROGRAM: Superfund
DOCUMENT CONTROL #: ESTW-9B-2747
ANALYSIS PERFORMED: 1,4-dioxane
DATE SUBMITTED: December 2, 1999
SAMPLE NUMBERS:

<u>Sample ID</u>	<u>Laboratory Sample ID</u>	<u>Sample ID</u>	<u>Laboratory Sample ID</u>
WNC9901	AB25195	WNC9902	AB25196
WNC9903	AB25203	WNC9904	AB25204
WNC9905	AB25261	WNC9906	AB25262
WNC9907	AB25263	WNC9908	AB25264
WNC9909	AB25265	WNC9910	AB25266
WNC9911	AB25267	WNC9912	AB25268
WNC9913	AB25269	WNC9914	AB25362
WNC9915	AB25363	WNC9916	AB25364
WNC9917	AB25365	WNC9918	AB25378
WNC9919	AB25379	WNC9920	AB25380

GENERAL COMMENTS

Twenty (20) water samples were received at the EPA Region 9 Laboratory from 10/27/99 through 11/03/99 from the Whittier Narrows Comprehensive project.

These samples were analyzed for 1,4-dioxane in accordance with the USEPA Region 9 Laboratory SOP 307, *1,4-Dioxane Analysis*.

SAMPLE RECEIPT AND PRESERVATION

The cooler temperature associated with the following samples was outside of the 2 - 6 ° C temperature range:

Sample ID	Lab Sample ID	Date Collected	Date Received	Cooler Temp
WNC9914	AB25362	11/1/99	11/1/99	9 ° C
WNC9915	AB25363	11/1/99	11/1/99	9 ° C
WNC9916	AB25364	11/1/99	11/1/99	9 ° C
WNC9917	AB25363	11/1/99	11/1/99	9 ° C

QA/QC AND ANALYTICAL COMMENTS

The following comment appears on the Summary of Analytical Results:

- A The amount detected is less than the quantitation limit, and is an estimated value.

No 1,4-dioxane was detected in the method blanks associated with these samples.

All MS/MSD results were within QC limits.

All internal standard areas and retention times were within QC limits.

All LCS results were within QC limits.

All samples were analyzed within the holding time. The holding time for water samples is 14 days if preserved to a pH of less than or equal to 2 or 7 days if the sample is not acid preserved.

RESULTS SUMMARY

The results can be found on the Summary of Results report.

Any questions in reference to this data package may be addressed to Joseph Naughten at (510) 412-2358.

Glossary of Terms:

Method Blanks

A laboratory method blank is laboratory reagent water or sand with all reagents, surrogates, and internal standards added and carried through the same sample preparation and analytical procedures as the field samples. The laboratory method blank is used to determine the level of contamination introduced by the laboratory during analysis.

Storage Blanks

A storage blank is laboratory reagent water that is stored in the laboratory refrigerator for one week. All reagents, surrogates, and internal standards are added at the time of analysis and it is processed through the same sample preparation and analytical procedures as the other blanks. The storage blank is used to determine the level of contamination introduced by the laboratory during sample storage.

Surrogates

Surrogates are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but which are not normally found in environmental samples. All samples are spiked with surrogate compounds prior to analysis. Surrogate percent recovery (%R) provides information about both the laboratory performance on individual samples and the possible effects of the sample matrix on the analytical results.

Matrix Spike and Spike Duplicate Analysis

Matrix spike sample and spike duplicate analyses provide information about the effect of the sample matrix on sample preparation and measurement. Poor percent recovery (%R) results and large relative percent difference (RPD) between duplicates may indicate inconsistent laboratory technique, sample nonhomogeneity in soils, or matrix effects which may interfere with analysis.

Internal Standards

Internal standards are organic compounds which are similar to the target analytes in chemical composition and behavior in the analytical process, but not normally found in environmental samples. All samples are spiked with internal standard compounds prior to analysis. Internal standard recoveries and retention times provide information about both the instrument performance on individual samples and the possible effects of the sample matrix on the analytical results.

Laboratory Control Samples

Laboratory control samples (LCSs) are analyzed daily to demonstrate comparability of the continuing calibration standard. It is equivalent to the continuing calibration standard, but it is obtained from an independent source.

EPA REGION 9 - LABORATORY - RICHMOND, CA
SUMMARY OF ANALYTICAL RESULTS

Case Number: R00S05

Site: Whittier Narrows Comprehensive

SDG: 99300A

Date: 12/02/99

Analysis: 1,4-dioxane

Matrix: Water

Sample No.	WNC9901			WNC9902			WNC9903			WNC9904			WNC9905		
Sample ID	AB25195			AB25196			AB25203			AB25204			AB25261		
Lab Sample ID															
Date of Collection	10/26/99			10/26/99			10/27/99			10/27/99			10/28/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
1,4-dioxane	5	U		5	U		5	U		5	U		5	U	

Sample No.	WNC9906			WNC9907			WNC9908			WNC9909			WNC9910		
Sample ID	AB25262			AB25263			AB25264			AB25265			AB25266		
Lab Sample ID															
Date of Collection	10/28/99			10/28/99			10/28/99			10/29/99			10/29/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
1,4-dioxane	5	U		5	U		5	U		5	U		5	U	

Sample No.	WNC9911			WNC9912			WNC9913			WNC9914			WNC9915		
Sample ID	AB25267			AB25268			AB25269			AB25362			AB25363		
Lab Sample ID															
Date of Collection	10/29/99			10/29/99			10/29/99			11/1/99			11/1/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
1,4-dioxane	5	U		4	J	A	7			5	U		3	J	A

Sample No.	WNC9916			WNC9917			WNC9918			WNC9919			WNC9920		
Sample ID	AB25364			AB25365			AB25378			AB25379			AB25380		
Lab Sample ID															
Date of Collection	11/1/99			11/1/99			11/2/99			11/2/99			11/2/99		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
1,4-dioxane	3	J	A	5	U		5	U		5	U		5	U	

Sample No.	Method Blank			Method Blank			Method Blank			Method Blank			Method Blank		
Sample ID	MWA1102			MWA1103			MWA1104			MXF1103A			MXF1104B		
Lab Sample ID															
Date of Collection	n/a			n/a			n/a			n/a			n/a		
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
1,4-dioxane	5	U		5	U		5	U		5	U		5	U	

Sample No.	Method Blank			Storage Blank											
Sample ID	MXF1105A			VHBLK1103											
Lab Sample ID				SB1118											
Date of Collection	n/a			n/a											
Units	ug/L			ug/L			ug/L			ug/L			ug/L		
Analyte	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt	Result	Q	Cmt
1,4-dioxane	5	U		5	U										

Q-Laboratory Data Qualifiers

U-This compound was analyzed for, but not detected.

J-The amount detected is an estimated value.

Cmt-See Report Narrative for Comment